

Do Essentialists Benefit From Multicultural Experience?

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Abstract

In order to further understand how people react to culturally diverse experiences an experiment was conducted at the University of Canterbury consisting of 120 participants recruited from the university and general public. It was hypothesised that participants would show a reduction in prejudice towards Asians, homosexuals, and the elderly after recollecting a past experience with a culture other than New Zealand culture and comparing it to NZ culture. Furthermore it was hypothesised that this process would be moderated by individual levels of psychological essentialism. Participants were asked to write a short essay about a past experience they had involving either a culture external to NZ, NZ culture by itself, or the last time they went to the beach (control). It was found that psychological essentialism influenced whether prejudice against homosexuals was reduced after reflecting upon NZ culture. Findings and implications are discussed.

Do Essentialists Benefit From Multicultural Experience?

During the 20th century, humans made more technological advances than ever before. A product of this has been a sharp increase in the ability of people from different cultures to interact with one another. Commonly referred to as globalization, individuals are now able to interact with different cultures through travel, media, and the internet in a variety of ways. This has resulted in a surge of research into how individuals respond when they experience, communicate, and interact with other cultures. One way in which researchers have tried to improve our understanding of diversity is by examining what factors influence how people react when exposed to different cultural groups (Chao, Kung, & Yao, 2015). By exposing people to culturally diverse environments, or by getting them to recollect a past experience they have had with another culture, researchers have found that not all people react in the same way to diversity. For example some people respond by relying less on stereotypes to make judgements about other cultures, while others can become more entrenched in their existing beliefs (Chiu, Mallorie, Keh, & Law, 2009). By measuring an individual's beliefs or personality traits and then exposing them to diverse environments, researchers have learned a lot about the underlying factors that determine how and why people react to diversity so differently. The current study seeks to expand on this research.

Intergroup Contact

Early research provides us with an understanding of what factors influence how groups react to each other. One of the leading theories surrounding this question is the Contact Hypothesis which was introduced by Gordon Allport in his classic work entitled "The Nature of Prejudice" published in 1954. Largely focusing on the role of prejudice between groups, or the feelings individuals have towards groups that are different from

them, Allport made the case that intergroup contact would be most beneficial for reducing prejudice under the following conditions: (a) whether or not the status between the groups was equal, (b) whether there was a sense of cooperative interdependence between the groups, (c) whether there was opportunity for interaction between members of each group, and (d) whether there existed egalitarian norms that promoted such contact.

Research since Allport (1954) has found that rather than the aforementioned conditions being necessary, they rather enhance the effect of any prejudice reduction that does occur as a product of intergroup contact (Van Laar, Levin, Sinclair & Sidanius, 2005). Researchers have also examined the role of intergroup contact in the digital age by looking at how online intergroup contact can play an important role in reducing prejudice (Amichai-Hamburger, Hasler, & Shani-Sherman, 2015). While some researchers have focused on the interaction between religiously based groups such as Christians and Muslims (White, Abu-Rayya, Bliuc, & Faulkner, 2015; Voci, Hewstone, Swart, & Veneziani, 2015), others have focused upon politically based groups (Sonderskov, & Thomsen, 2015).

Expanding on research into intergroup contact, researchers have looked at the role of cultural exposure, specifically, the effects of exposure to cultures that differ from one's own (Adair, Okumura, & Brett, 2001; Leung, Maddux, Galinsky, & Chiu, 2008). This has been done in a variety of different ways. For example Maddux, Adam, and Galinsky (2009) measured individual experience travelling abroad and found that it enhanced creativity. Others have used an experimental approach by asking participants to imagine a scenario in which they were a member of a campus committee preparing activities for orientation week. One of these activities involved greeting a freshman and showing them around campus. The experiment manipulated the character description of the freshman,

making them either the same ethnicity as the participant (Euro-American) or a different ethnicity (Asian).

Researchers therefore have had to adopt a finer lens of enquiry when researching the relationship between different groups. For example, research looking at the interaction between two groups who differ based on their political views within a society (Sonderskov, & Thomsen, 2015), may differ from research looking at the interaction between two groups who differ based on cultural identity (Verkuyten, 2005). This could be because cultural identity is almost always something people are born into while political orientation is often chosen by the individual. Given the broad scope of the intergroup literature the current study will focus solely on culturally based groups. When examining how people react to having an experience with different cultural groups it is important to provide a definition of what exactly is meant by culture. Within the research literature culture has been defined as a shared meaning system (Rohner, 1984), providing individuals with behavioural norms, shared values, a moral script, as well as a shared history (Chiu & Hong, 2007).

Multiculturalism and Multicultural Experience

Research has shown that the concept of a multicultural society can either increase or decrease prejudice attitudes depending on how it is construed (Yogeeswaran, & Dasgupta, 2014). For example, when using a more abstract description of the benefits of a society with different cultures, religions, and views, White Americans (the majority group) were less threatened by the prospect of diversity for their national identity. However when a more concrete view of multiculturalism was taken, by emphasizing the specific steps needed to be taken by individuals to achieve multiculturalism, White

Americans viewed diversity as more threatening to the national identity. In both cases, this increase or decrease in threat was related to prejudice.

Multiculturalism and multicultural experience are not identical constructs. Attitudes towards a multicultural society are not the same as having a multicultural experience. This is largely due to the fact that having a multicultural experience can occur in isolation from one's own culture, (e.g. a holiday abroad). When it is over the individual may have the potential to return to their own culture which was not affected by the individual's experience. When examining attitudes towards multiculturalism, the prospect of having to change one's own way of life becomes an issue. The current study aims to focus on multicultural experiences and not individual attitudes towards multiculturalism.

The Effects of Cultural Experience

Given the rise in Globalisation, cultures are interacting more and more with one another and this can give rise to different effects. There is a level of contradiction within the current literature regarding whether exposure to multicultural experiences, defined as "all direct and indirect experiences of encountering or interacting with the elements and/or members of foreign cultures" (Leung et al., 2008) has a positive or negative effect (Chao et al, 2015; MacInnis, & Page-Gould, 2015). Some researchers have shown that exposure to racial diversity in the educational setting has beneficial effects of cognitive processes such as critical thinking (Laird, 2005) as well as enhanced creativity (Maddux & Galinsky, 2009; Leung et al., 2008). In organisational settings diversity has been linked to increased innovation as well as better group decision making (Guillaume, Dawson, Priola, Claudia, et al., 2014; Van Knippenberg, & Shippers, 2007). The outcome of this research is that experiencing diversity, regardless of the setting, challenges existing expectations and can

benefit individuals by enhancing general cognitive flexibility (Crisp & Turner, 2011; Maddux et al., 2009).

However, other research has found that exposure to other cultures can result in the activation of defence mechanisms designed to protect one's underlying beliefs as differences between the cultures become exaggerated (Adair et al., 2001; Chiu, Mallorie, Keh, & Law, 2009). For example organisations have found that although diversity can result in positive benefits as previously mentioned, it can also result in conflict and resentment between employees if not managed properly (Galinsky, Todd, Homan, Phillips, et al., 2015; Guillaume, et al., 2014). A classic example of when cultural exposure resulted in a negative effect is after the 2008 Chinese Olympic Games where rather than bringing Eastern and Western cultures together, it resulted in an increase of perceived differences. Specifically, Cheng, Rosner, Chao and others (2011) measured Chinese perceptions of Chinese and Western values before and after the Olympics. Their results revealed that when the Chinese participants were exposed to the Beijing Olympic Logo after the Olympics they perceived greater differences between Western and Chinese cultures.

Researchers have looked at what factors may be causing this disparity in the literature regarding exposure to culturally diverse experiences. One of the individual differences that have been found to play an important role is how open an individual is to new experiences (McCrae, & Costa, 1997). Leung and Chiu (2008) found that multicultural experience only resulted in higher levels of creativity when the individual was high in openness to experience. When the individuals were low in openness to experience they found a decrease in creativity, rather than simply a lack of beneficial effect, indicating they were having a negative response to culturally diverse experiences.

Another strain of research looking at what determines how an individual reacts to multicultural experience is whether or not that individual holds majority or minority status within society. Research by Tropp and Pettigrew (2005) showed that intergroup contact using Allport's (1954) criteria for optimal prejudice reduction was successful for members of majority status groups, but significantly weaker for minority status groups. It has also been hypothesised that majority groups members may react negatively to foreign cultures due to a fear of competition over resources, or loss of their majority status (Morrison, Plaut, & Ybarra, 2010).

Need for Cognitive Closure and Multicultural Experience

There is clearly a need to better understand why some individuals benefit from multicultural experiences, and why others do not. Tadmor, Hong, Chao, Wiruchnipawan, and Wang (2012) conducted a series of six studies in order to investigate the beneficial effects of exposure to multicultural experience on intergroup bias. In their first study Tadmor et al (2012) had Caucasian Americans view PowerPoint™ presentations of either American culture, Chinese culture, or American-Chinese culture and then write a five minute essay describing their impressions of the presentation. Participants then filled out a survey measuring their endorsement of negative stereotypes of African Americans. What the researchers found was that participants in the multicultural condition (i.e. exposure to American-Chinese culture) were less likely to endorse stereotypes about African Americans than were participants in the monocultural conditions (American culture only or Chinese culture only). This was the first experimental study showing the causal role of multicultural experience in reducing stereotype endorsement.

In their second study Tadmor et al (2012) repeated their experimental manipulation using two monocultural and one multicultural PowerPoint presentation followed by an

essay. The researchers then had participants assume the role of hiring manager for an organisation and rate a series of resumes based on how qualified they believed the applicant was for the role. The resumes were split into low quality and high quality resumes and were assigned either Caucasian or African American sounding names. The results of the study revealed that participants in the monocultural condition were significantly more likely to choose the high quality Caucasian candidate than the African American candidate. Participants in the multicultural condition, however, were just as likely to select a Caucasian high quality candidate as an African American high quality candidate. These findings extended the benefits of multicultural exposure to discrimination in hiring decisions.

In order to explain their findings Tadmor et al (2012) hypothesised that beneficial effects of multicultural exposure were a product of the individual becoming epistemically unfrozen. The juxtaposition of different cultures resulted in the participants existing knowledge structures to become flexible and subsequently open to change. The result being that individuals who are in this state will be more likely to search and process information more deeply. The researchers then hypothesised that if this was indeed the mechanism by which multiculturalism was having its effect, then individuals who have a strong need for epistemic security, that is, prefer to have fixed ideas and are uncomfortable with ambiguity, would be more likely to enter this state of epistemic unfreezing. An important aspect of culture is that it can provide an individual with a state of epistemic security which allows them to know how to act in a given situation. This psychological need has also been described as the need for cognitive closure (NFCC; Kruglanski, 2004) which can be defined as an individuals' need for a firm answer to a question, regardless of how accurate that answer may be to the truth.

Therefore in a third study, Tadmor et al (2012) investigated the role of NFCC as a potential mediating mechanism for the beneficial effects of multicultural exposure. The researchers had Israeli undergraduate participants write short (ten minute) essays on one of three topics depending on the condition they were assigned to: an experience when they were exposed to a culture other than Israeli culture (multicultural condition), a time they were exposed to Israeli culture (monocultural condition), and a time they went to the beach (control condition). The participants then had to complete a measure of NFCC constructed by Roets and Van Hiel (2007). The researchers found that participants in the multicultural condition scored significantly lower on the NFCC scale than did participants in the monocultural or control condition which did not significantly differ from each other.

Tadmor et al (2012) then conducted a fourth study to test the full mediating model of NFCC on multicultural experience. Israeli participants were asked to fill out several scales measuring their experiences with different cultures, their level of NFCC, and for their dependent variables they measured participants' endorsement of Ethiopian, homosexual, and native Israeli stereotypes. The researchers found that NFCC was the mechanism by which the endorsement of stereotypes was reduced when exposed to a multicultural experience. This means that when an individual is exposed to a multicultural experience, their need for cognitive closure is reduced. This has the subsequent effect of reducing their endorsement of stereotypes.

In study five Tadmor et al (2012) extended their findings to a Caucasian American sample and included measures of prejudice as dependent variables. They replicated their findings from study four finding NFCC was acting as a mediating variable. In order to test their model in an experimental setting to avoid the potential of reverse directionality Tadmor et al (2012) conducted a final study using an experimental approach. Israeli participants were assigned to one of four different essay writing conditions: multicultural,

monocultural, foreign-culture, or travel abroad. The two new conditions were included in order to ascertain whether the comparison between two different cultures was driving the effect on stereotype endorsement, or whether it was only the experience of a foreign culture. After completing this exercise measures of stereotype endorsement of Ethiopians and NFCC were taken as well as measures of prejudice. Results supported Tadmor et al's (2012) hypothesis and direction of causality that multicultural experience was causing epistemic unfreezing which in turn led to reduced stereotyping as well as a reduction in prejudice.

Based on these studies it can be seen that NFCC is a strong individual factor that predicts how people will react to multicultural experiences. Interestingly the effects of multicultural experience were not limited to a reduction in ethnic stereotyping, but generalised to stereotypes regarding homosexuals as well. Another interesting facet of the research is that it was conducted in countries (Israel and American) whose prototypical member is of a single ethnicity. Research has demonstrated that Americans view the prototypical American to be white (Devos, & Banaji, 2005; Ma & Devos, 2013; Yogeeswaran & Dasgupta, 2010), while Israelis' have developed a strong Jewish national identity through their long standing history (Israel being founded in 1300 BCE). Furthermore Tadmor et al, (2012) used only Israeli Jews in their studies and the Israeli Jewish identity has held together despite occupation of parts of Israel by Palestinian Arabs (Kelman, 1999; Rouhana & Ghanem, 1998). This is highlighted by the Israeli concept of *Hafrada* which refers to a policy put in place by the Government of Israel to separate the Palestinian population from the Israeli Jewish population. It is no surprise then that Israel has forged a single cultural identity and attempted to protect against Palestinian influence and this is reflected in the fact that Israeli Jews only occupy one country, while Arabs occupy 21 separate countries (World Factbook, 2016).

The New Zealand Context

By contrast to both the USA and Israel, New Zealand (NZ) is a bicultural society whose members view the national prototype as both NZ European (the majority group) and Maori (the indigenous people of NZ) (Sibley & Liu, 2007; Sibley, Liu & Khan, 2008; Sibley & Barlow, 2009). This poses the question of whether having a multicultural experience will have the same effect as found by Tadmor et al (2012) on New Zealand participants. It also raises the question of whether this effect, if found, would be distinct from having an experience with NZ culture. In the current context it makes more sense to refer to the phenomenon as international and intranational experiences as opposed to multicultural and monocultural since reflecting upon NZ culture may not necessarily be monocultural.

The first condition required participants' to write about a time they had experienced a culture other than New Zealand culture and then to compare differences and similarities with New Zealand culture. This was known as the international experience condition. The second condition consisted of participants writing solely about New Zealand culture, specifically about a previous experience they had which reminds them strongly of New Zealand culture. This was labelled the intranational condition. The last condition was a control and asked participants to write about the last time they went to the beach.

Epistemic unfreezing is understood to occur when an individual is faced with views that are different from their own (Kruglanski, 1989). This process is necessary in order for a reduction in stereotyping to occur as shown by Tadmor et al (2012). Given that NZ has a bicultural national prototype, when having an intranational experience a NZ citizen is not being faced with a view different from their own, although they are

experiencing multiple cultures. This has implications for whether or not they will become epistemically unfrozen and subsequently show a reduction in prejudiced attitudes.

The first aim of the current research is to investigate how NZers (individuals living in a bicultural society) respond to international and intranational experiences. Specifically how being exposed to cultural experiences will affect prejudice towards different groups within NZ society. As pointed out by previous research, being exposed to culture has the effect of reducing prejudice, however, this only occurred when an individual was exposed to two different cultures. It remains unknown whether being exposed to two cultures that make up a bicultural society, will have this same effect. Furthermore it is unknown whether being exposed to two cultures from two different countries will have a different effect on prejudice than being exposed to two cultures from the same country.

Psychological Essentialism

Tadmor et al's (2012) work gave evidence for the role of NFCC as a mediator of the ameliorative effects of multicultural experience on stereotype endorsement. Alongside openness to experience and majority vs. minority group status NFCC can be seen as one of the key factors underling how individuals respond to diversity. Given that an enhancement in general cognitive flexibility seems to be key to how NFCC mediates the role of multicultural experience, it follows that people who possess a more rigid mind set will be less likely to benefit from culturally diverse experiences.

One way of testing this has been to look at individual levels of psychological essentialism, which can be defined as “the belief that social groups possess underlying essences that give rise to immutable characteristics” (Gelman, & Hirshfeld, 1999). This is very much in common with Allport's (1954) assertion that stereotypes form as a result of a cognitive categorisation process that is in place for the efficient storage and retrieval of

information. Indeed research has shown that high levels of psychological essentialism result in reduced intention to engage in ethnically diverse activities (Lee, Wilton, & Kwan, 2014). This is most likely due to psychological essentialism being linked to cognitive flexibility, resulting in individuals being placed firmly into categories. Just as diversity experience has been found to enhance creativity (Maddux et al, 2009) high levels of psychological essentialism have been found to reduce creativity (Tadmor, Chao, Hong, & Polzer, 2012). Furthermore essentialist beliefs have been found to predict increased prejudice towards minority groups within a society (Haslam, Rothschild, & Ernst, 2000).

Therefore, psychological essentialism can potentially play a moderating role between cultural experience and stereotype endorsement. There is also potential for essentialist beliefs to play a role in Tadmor's (2012) mediation model since research has found that psychological essentialism mediates the relationship between individual NFCC and racial prejudice (Roets, & Van Hiel, 2011).

In the New Zealand bicultural context, it is of interest to investigate the role of psychological essentialism on the endorsement of stereotypes. No studies to date have looked at essentialist beliefs in the New Zealand context. Essentialist beliefs focus on the rigidity of boundaries between groups, therefore, how this will translate in a society with a bicultural national prototype is not known. A study performed in the American context found that individuals who endorse more essentialist beliefs were more likely to group individuals based on their ethnicity, for example African Americans with other Africans and white Europeans with other Europeans (Chao, Hong & Chiu, 2013). When New Zealanders high in psychological essentialism are exposed to intranational experiences they may group the two different prototypical ethnic groups that make up New Zealand's national identity together, thereby avoiding epistemic unfreezing. Past research has revealed that greater exposure to ethnic categories during development helped to alleviate

children's essentialist beliefs (Deeb, Segall, Birnbaum, Elliyahu & Diesendruck, 2011), indicating the barriers between ethnic groups were being broken down, making them less distinct.

Collectively a secondary aim the current study will be to examine the potential moderating role of psychological essentialism in regards to the effects of international and intranational experience on individual prejudiced attitudes.

The current study therefore aims to test the following hypotheses:

- a) When asked to reflect on a past international experience, individuals who live in a bicultural society will show a reduction in prejudice.

And,

- b) Psychological essentialism will moderate the effect of recalling an international experience on reducing prejudice.

Method

In order to test the current hypotheses, measures of psychological essentialism and NFCC from participants using the essentialist entitativity beliefs scale (Roets et al., 2011) and the need for cognitive closure scale (Roets et al., 2007). Participants will go through the same experimental manipulation as used by Tadmor et al (2012; Study 3) to expose them to either international or intranational experiences as well as a control experience. Feeling thermometers and a measure of individual feelings towards different groups in New Zealand will then be used to assess prejudice levels. These groups will include Asian-New Zealanders in order to gain a measure of prejudice towards an ethnic group within New Zealand society, as well as homosexuals to test whether the same generalising found by Tadmor et al (2012) is replicated. The elderly will also be used as a group in order to test whether further generalisation is possible.

Participants

120 participants were recruited from the University of Canterbury first year psychology course using the online system SONA™, as well as using advertising through both flyers posted around the university and using online social media. Participants from the first year psychology course were offered course credit for their participation, while participants who responded to the flyer or online advertisement were given a \$10 Westfield mall voucher as compensation for their time. To ensure the integrity of the data participants who failed to fill in the study materials, gave extreme responses, or responded in a pattern were removed. The final sample consisted of 115 participants (28 Male, 87 Female) with 83% of the sample indicating they were between the age of 18 and 25. 61% of the sample was born in New Zealand. 54% of participants indicated they most closely

identified with New Zealand European ethnicity. The second most common ethnic group participants identified with was Asian (14%).

Measures

Demographics.

Information on participants' gender, age, country of birth, and ethnicity was recorded from each participant at the end of the study. This was included at the end as prior research has shown that having participants declare their demographic information can influence their response to culturally related questions (Lee et al., 2014).

Psychological essentialism.

The Essentialist Entiativity Beliefs scale created by Roets and Van Hiel (2007) was administered to participants in the first part of the study in order to measure participants' individual level of psychological essentialism. The scale is composed of twelve questions and responses were made on a five point Likert scale with the following anchors: 1) Completely Disagree, 2) Somewhat Disagree, 3) Neutral, 4) Somewhat Agree, and 5) Completely Agree. Sample items include "Members of a racial group are usually very similar" "If you know to which racial group someone belongs, you know a lot about his/her personality" and "Membership of a racial group largely determines someone's identity". For the full list of items please see appendix B.

Experimental manipulation.

The same procedure used by Tadmor et al (2012) in study 3 was used as the experimental manipulation. Participants' were randomly assigned to one of three conditions, all of which required spending at least ten minutes writing an essay about a past experience they have had. Participants were specifically asked in all conditions to try

to relive the experiences again in their imagination and to describe the experience in as much detail as possible. Participants were assigned to one of the three conditions randomly. To view the three essay question sheets in more detail please refer to appendix C.

Experimental conditions are summarised in table 1 below.

Table 1

Condition	Essay Topic
(1) International	Describe a cultural experience with a culture other than New Zealand and compare it to New Zealand Culture
(2) Intranational	Describe a New Zealand cultural experience you have had
(3) Control	Describe the last time you went to the beach

Test of equivalence.

In order to ensure that the writing task was equivalent across conditions excluding the actual experimental manipulation, participants were asked to answer three questions relating to the task. 1) How hard they found the task, 2) How much effort they put into the task, and 3) How happy they felt after completing the task. Responses to all three questions were captured on a five point Likert scale with the following anchors.

Experimental manipulation check.

A coder read the essays contents and assigned a code based on the extent to which the participants had followed the instructions of the essay using the following criteria: (1) completely ignored instructions, (2) semi-obeyed instructions, (3) mostly obeyed instructions, and (4) completely obeyed instructions. In addition to the coding of the essays participants were also asked what they thought the study was about. This was done in order to ascertain whether they had knowledge of the studies true hypothesis or of the different experimental conditions which may have biased their results.

Need for cognitive closure.

A scale developed by Roets and Van Hiel (2011) was used to measure individual levels of need for cognitive closure. This scale is a shortened version of a scale developed by some of the first researchers looking at individual need for cognitive closure (Webster & Kruglanski, 1994). In order to avoid participant fatigue, the shorter scale was chosen. Responses were recorded on a six point Likert scale with the following anchors: 1) strongly disagree and 6) strongly agree. Higher scores indicated a higher need for cognitive closure. Sample items include: “I would rather make a decision quickly than sleep over it” and “Even when I get a lot of time to make a decision, I still feel compelled to decide quickly”. For a list of all the items in the scale please refer to appendix d.

Measures of prejudice.

Participants were asked to mark on a thermometer scale from 0 degrees to 100 degrees the extent to which they felt cold or warm respectfully towards Asians, homosexuals, and the elderly in New Zealand. This method of measuring attitudes/feelings has been used in many previous studies (Dasgupta & Greenwald, 2001;

Glick & Fiske, 1996; Ho & Jackson, 2001) and is widely viewed as a valid measure of individual prejudice towards groups.

Participants were also asked how they felt about Asians, homosexuals, and the elderly in New Zealand society using a semantic differential measure. This measure is also a common tool used in prejudice research (e.g. Hsueh et al., 2015; Ho & Jackson, 2001). They responded on a 7 point Likert scale with the following anchors: 1 (Very negative), 4 (Neutral), and 7 (Very positive).

Procedure

Participants were instructed to come to the social psychology lab at the University of Canterbury to take part in the study. Upon arrival they were instructed to sit at a small desk with a computer screen, mouse, keyboard, and pen. Participants were then given a short explanation of the study procedure which consisted of the following statement: “The study has three components, each taking approximately ten minutes. The first part consists of answering a few personality questions on the computer, the second part is a short hand written task about a past experience they have had, and finally the third section consists of a few more questions about their opinions and views on different groups within New Zealand society.” Participants were then given an information sheet as well as a consent form (see appendix A) and were given as much time as they needed to read the two forms before signing. Participants were then instructed to begin answering the first set of questions relating to their personality, once again they were given as much time as they needed to do so. The questions were asked and data collected using the online survey system Qualtrics™. Once they had completed all of the questions in the first section they were given a piece of A4 paper which instructions on what to write about. These instructions were specific to the condition the participant was assigned to. The participants

were given as much time as needed to write (but had to at least spend 10 minutes on the task) and upon completion the essay was folded in half by the participant and placed in a box to ensure anonymity. The participants were then asked to complete the final section which consisted of completing the measure of need for cognitive control, the manipulation check, as well as rating how they felt towards Asians, homosexuals, and the elderly within New Zealand society. Once all the questions were answered participants were debriefed on the true nature of the study and given compensation for their participation. Participants recruited for course credit were required to answer three questions relating to the aim, method, and purpose of the study in order to receive their credit.

Results

Reliability analysis

Reliability analysis was conducted on the Psychological Essentialism scale using Cronbach's α (Cronbach, 1951). An initial α of .77 was found. After removing one item (item 11) the final Cronbach's α value was .80. Additionally reliability was calculated for the three subscales that comprise the essentialism scale and were as follows: uniformity ($\alpha = .63$), informativeness ($\alpha = .44$), and inference ($\alpha = .58$). The low reliability of the subscales was used to justify the removal of one of the items despite the relatively small in reliability for the entire scale. When analysed in the subscale it was found to decrease reliability by $\alpha = .12$. Reliability was also calculated for the NFCC scale revealing a Cronbach's α of .79, one item (item 1) was removed to increase α to .84.

Test of task equivalence

A one-way ANOVA was conducted and no significant differences were found across conditions for how much effort was put into the task, $F(2, 112) = 0.41, p = .67, \eta^2 = .007$; task enjoyment, $F(2, 111) = 0.01, p = .99, \eta^2 = .001$; or happiness, $F(2, 112) = 0.38, p = .68, \eta^2 = .006$.

Manipulation check

It was found that 66 participants completely obeyed instructions when completing the written task, while 2 participants completely ignored the instructions 22 participants mostly obeyed and 8 semi-obeyed. Participants who completely ignored instructions were removed, the rest were included in the analysis to preserve statistical power.

Assumptions for using a one-way ANOVA

The dependent variables (Likert scale report of prejudice feelings and feeling thermometer) were both interval and the independent variable (essay condition) contained three categorical independent groups. Each participant was assigned to only one condition and therefore there was independence of observations. Boxplots and histograms were developed in order to test for outliers, none were found. The Shapiro-Wilk test for normality was conducted and was significant for all dependent variables; however analysis of Q-Q plots revealed the residuals approximately fell on the normality line for all variables. Finally a Brown-Forsythe test for homogeneity of variance was conducted and no significant values were found.

Effect of international and intranational experience on prejudiced attitudes

Scores from the semantic differential measure of feelings towards Asians, $F(2, 112) = 0.59, p = .56, \eta^2 = .01$; homosexuals, $F(2, 112) = 2.88, p = .06, \eta^2 = 0.049$; and the elderly $F(2, 112) = 0.127, p = .29, \eta^2 = .02$, did not differ significantly between conditions, although feelings towards homosexuals was approaching significance at the .05 level. Ratings on the feeling thermometer towards Asians, $F(2, 112) = 0.85, p = .43, \eta^2 = .015$; and the elderly, $F(2, 112) = 1.72, p = .18, \eta^2 = .029$ did not differ significantly, however ratings of homosexuals did $F(2, 112) = 2.99, p = .05, \eta^2 = .051$.

Moderation Analysis for Psychological Essentialism

Coding.

In order to conduct a test for the moderating role of psychological essentialism on the effects of international vs. intranational exposure on prejudicial attitudes, the condition categories were dummy coded using the control condition as the reference group. The

essentialism scale was then centred and interaction terms were calculated using the guidelines of Aiken and West (1991).

Assumptions of multiple regression.

Scatter plots were constructed and the data revealed a linear trend. Normality was previously determined via analysis of Q-Q plots and the Shapiro-Wilk's statistic. All correlations between the independent variables were lower than 0.8 indicating a lack of multicollinearity. The Durban-Watson statistic was calculated for all variables and was between 1.5 and 2.5 indicating no autocorrelations were present. Finally P-P plots were constructed to test for homoscedasticity.

In order to test for the role of psychological essentialism as a moderator, the centred variable was entered into the first step of a regression analysis along with the dummy coded international and intranational conditions. In the second step the interaction terms between the intranational condition and psychological essentialism and the international condition and psychological essentialism were entered. This was performed for each of the dependent variables with the associated changes in R^2 and p-values reported in table 2.

Table 2 changes in R^2 for prejudice attitudes

Dependent Variable	Change in R^2	P value
Feelings towards Asians	.02	.24
Feelings towards homosexuals	.01	<.01
Feelings towards the elderly	.03	.28
Feeling thermometer for Asians	.04	.21
Feeling thermometer for homosexuals	.02	<.01
Feeling thermometer for the elderly	.06	.08

As can be seen in Table 2 significant changes in R^2 were found for feelings towards homosexuals using the semantic differential, as well as the feeling thermometer. In order to analyse the data simple slopes were developed for each variable using the programme Interaction™. These can be seen below in figures 1 and 2.

Figure 1 simple slope analysis for feeling thermometer

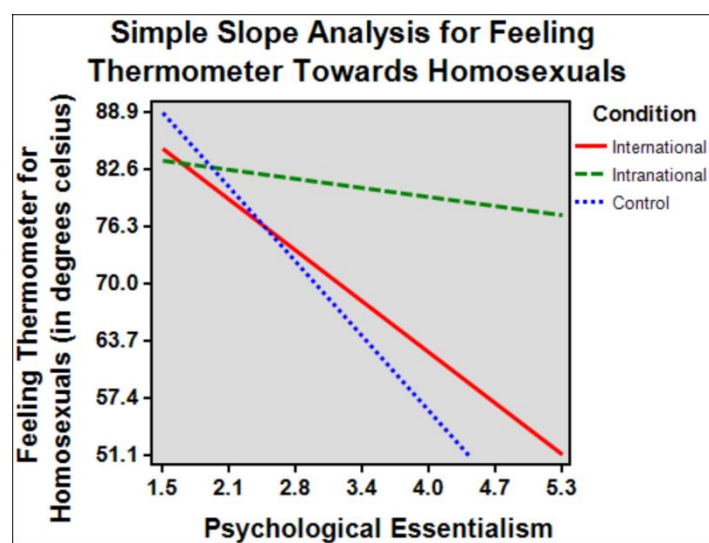
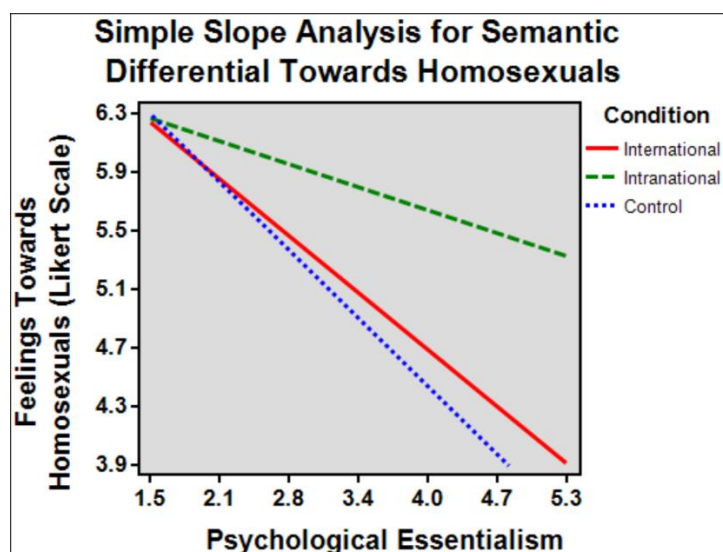


Figure 2 simple slope analysis for semantic differential



Discussion

The findings from the current study indicate that diversity remains a complex topic. It can sometime have a positive effect, for example, by reducing individuals' endorsement of stereotypes (Tadmor et al., 2012) while otherwise its effect can be more difficult to interpret. In a world that is becoming increasingly diverse it is important to understand when and why this happens. This is in order to ensure the wellbeing of culturally diverse employees, to capitalise on the benefits of diversity in settings ranging from education to government, and to put in place political agendas that are in the best interest of all members of society. Much of previous research has been conducted in society's that are largely monocultural, or at least view their national prototype of a singular ethnicity. This makes the current research all the more important in understanding how people in a bicultural society respond to culturally diverse experience.

The data revealed a significant effect for prejudice towards homosexuals, however the trends observed were not what was expected. Participants in the intranational condition showed a reduction in prejudice, while those in the control and international condition did not. It was expected that participants in the international condition would reduce in prejudice. Furthermore this effect was only found for homosexuals. This may be due to the sample consisting of Asian participants who would have shown less prejudice towards other Asians. Previous research has shown that individuals favour their own ethnic groups and therefore may have provided biased answers (Myers, 2013). This is surprising given the findings of previous research, most notably the series of studies conducted by Tadmor et al (2012). The experimental manipulation has been used successfully before (Hong et al., 2004; Tadmor, Tetlock, & Peng, 2009; Tadmor et al., 2012) and therefore it is unlikely that the manipulation failed to evoke past experiences with different cultures (or not depending on condition). Instead it is more likely that the bicultural nature of New

Zealand society or the dependent variables used to capture prejudice were responsible for the lack of effect.

The population of New Zealand differs from the population of the USA in terms of the amount of overseas travel the citizens' engage in. It is estimated that 75% percent of New Zealanders hold passports (Statistics New Zealand, 2014), while only 36% percent of USA citizens do (Passport statistics, 2015). This makes sense given New Zealand's relatively small land mass of 286,000 km² compared to the land mass of the USA at 9,850,000 km². In fact travel seems to be so common to the people of New Zealand that it is often regarded as part of the national identity, or what it means to be a New Zealand citizen (Statistics New Zealand, 2012).

This has implications for what reaction the participants in the current study would have had when writing about an international experience. According to Tadmor et al (2012) the mechanism by which writing about an international experience ameliorated individuals' endorsement of stereotypes was by epistemically unfreezing them. Kruglanski (1987) explains that one of the ways this can occur is with the presentation of information that challenges existing beliefs or expectations. It may therefore be unsurprising that New Zealand citizens showed no effect when writing about past international experiences, as it is viewed as a common experience in their culture. This is one potential explanation for why the trend lines shown in the simple slope analysis are very similar for the international and control condition.

However this still fails to explain the effect found in the intranational condition. It appears that when participants' were asked to write about an experience within New Zealand culture, that they did not differ significantly in their ratings based on their level of psychological essentialism. It appeared that New Zealand culture had a buffering effect on

the ability of highly essentialism beliefs to predict increased prejudiced views. This finding, combined with the lack of effect found for the international condition, is of particular interest in contrast to the six studies conducted by Tadmor et al (2012) over two different countries, which found no difference between the monocultural (intranational) and control condition. This indicates something unique to New Zealand culture. New Zealand as a country has a history of promoting equality among citizens, for example, by giving women the ability to vote and the legalisation of gay marriage (Sibley & Wilson, 2007). Participants who wrote about New Zealand culture therefore may have had these values reaffirmed, reducing the effect of essentialist views on prejudice towards a minority.

Limitations

In order to know whether either of these possible explanations really do explain the current results, more research is needed to address the limitations of the current study. A greater participant pool will allow for more statistical power, and therefore elaborate on the accuracy of the current findings. Furthermore, it is uncertain the degree to which participants who identified as Asian has significantly differing views on the elderly or on homosexuals. Therefore it would be beneficial to conduct a study using the same experimental manipulation using only New Zealand European participants, as well as a separate study examining the attitudes and values of Asian New Zealanders. In addition to replicating the current method, for the purposes of conducting this study in a bicultural society, it may be of use to separate the monocultural condition in to two conditions. The first could ask participants to discuss both New Zealand European culture and Maori culture, while the second could ask to only discuss an experience with New Zealand European culture alone. This would be conducted along with the international and control conditions used in the present study. This would provide preliminary evidence for whether

the juxtaposition of two cultures has a different effect based on whether it is intranational or international and would build upon Tadmor et al's (2012) mediation model if need for cognitive closure was also measured.

The Roets and Van Hiel (2011) measure used to determine individual levels of psychological essentialism is perhaps not culturally suited to the New Zealand context. Although this scale has been used successfully in recent years (e.g. Hanson-Easey & Augoustinos, 2014), the current study found particularly low reliability estimates when the scale was analysed in terms of its three subscales. This has implications for the data analysis and subsequently the accuracy of the current findings. Although the scale developed by Roets and Van Hiel (2011) was cross-culturally validated, this may well be the first time it has been used in an NZ population, however there is no reason apart from the bicultural nature of the country to expect individuals to respond differently. In future studies measuring psychological essentialism, it would be worthwhile to use another scale. A widely used measure in the essentialist literature is one developed by Haslam, Rothschild and Ernst (2000) which has been used a lot when looking at ethnic intergroup relations. There is also a scale developed by Levy, Stroessner and Dweck (1998) that has been well validated. The reason these scales were not used in the current research is because the Roets and Van Hiel (2011) scale is much more recent and is also shorter which helps prevent participants becoming fatigued or bored.

Despite these limitations the current study had expanded on the current literature of psychological essentialism and the role it plays in understanding prejudice. Furthermore it highlights that as the world becomes more culturally diverse, it is important to update theoretical models surrounding the nature of prejudice. The notion of a bicultural national identity will become increasingly more prevalent and this begs the question of what effect

this may have on how people view people from different groups within society.

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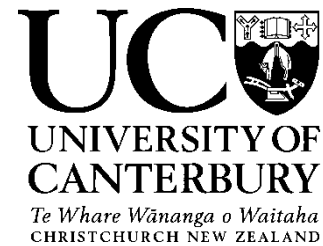
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Appendix A: Information, Consent, and Debrief Forms



MEMORY RECALL AND GROUP PERCEPTIONS

INFORMATION SHEET

You are invited to participate in a research study conducted by University of Canterbury researchers. Please read the information below which outlines what is involved in this research. If you would like to complete this study, which will take approximately 30 minutes, you can give your consent by signing the form below. To thank you for your time and participation, you may either receive course credit if you are part of a Psychology 100 level class; otherwise all other participants may choose between a \$10 Westfield voucher or a \$10 petrol voucher, after completion of this survey and a subsequent study. This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch; email human-ethics@canterbury.ac.nz. Any inquiries or complaints can be addressed to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch 8140.

PURPOSE OF THE STUDY

The purpose of this research is to investigate memory recall and perceptions of different groups in New Zealand.

PROCEDURE

By volunteering in this study, you will be asked to provide information about your feelings toward different groups in New Zealand and be asked to write a short (10 minute) essay about a previous experience.

POTENTIAL RISKS AND DISCOMFORTS

There are no foreseeable risks associated with this study. However the survey contains questions relating to identity and ethnicity, for this reason we understand that some people may find the content discomforting. If you feel uncomfortable with the research at any time, please note that you may withdraw from the research and you may request that all the information provided by

you be discarded. Participation in this study is voluntary and your responses will be entirely confidential.

POTENTIAL BENEFITS TO PARTICIPANTS AND ORGANISATIONS

The information gained from the study will potentially help participants, organizations, and researchers to better understand the role of memory recall in perceptions of groups in New Zealand.

CONFIDENTIALITY

The researchers are very mindful of the need to protect participants' interests. Any information that you provide will be treated as confidential. Only the principal researcher and named co-investigators, who have signed a formal confidentiality agreement, will have access to the raw data, which will be destroyed after five years. Under no circumstances will any data you supply be disclosed to a third party in any way that could reveal who the source was. The survey data will be stored on password-protected computers in secured locations in the Psychology Department. The results of the project may be published, and as this research involves anonymous questionnaires you can be assured that your name will not be revealed in any reports or publications generated by this study, without your prior consent.

PARTICIPATION AND WITHDRAWAL

Participation is entirely voluntary, and you may withdraw at any time. If you wish to withdraw, please notify the researcher holding the research session, and any data you have provided will be deleted. Due to the short length of this study, it will be administered in conjunction with another research project that is being conducted. If you are Psychology 100 level student, you are eligible to receive course credit for participation through the Psychology department subject pool after completing both research projects; all participants not associated with the Psychology 100 level class, may receive a \$10 Westfield or Petrol voucher which will be given to you after the completion of both research projects.

You may receive a copy of the project results by contacting the researcher at the conclusion of the project.

The project is being carried out as a requirement for a Masters Dissertation for Julian Jennings under the supervision of, Dr Kumar Yogeeswaran. If you have any questions or concerns about this research, please contact Julian on [jjgj22@uclive.ac.nz](mailto:jgj22@uclive.ac.nz) or Dr Kumar Yogeeswaran

(kumar.yogeeswaran@canterbury.ac.nz). They will be pleased to discuss any concerns you may have about participation in the project.

If you agree to participate in the study, you are asked to complete the consent form and return the form to the researcher/ research assistant running the study.



PARTICIPANT CONSENT FORM

- I have read and understood the description of the above-mentioned project.
- I understand that my participation will involve completing an anonymous questionnaire.
- I understand that I am eligible for either course credit (if you are a PSYC106 student completing this study for course credit); or for all other participants- a \$10 Westfield or petrol voucher upon completion of this experiment.
- I understand that I can withdraw from the study at any time and the data I provided will be deleted.
- I agree to publication of results, with the understanding that my anonymity will be preserved.
- I also understand and am satisfied with all the measures that will be taken to protect my identity and ensure that my interests are protected.
- I fully accept that I am giving my consent to participate in this research study. (By signing the consent form I indicate that I understand and agree to the research conditions)

Full Name (please print):

Signature:

Date:

/ /



Debrief:

Thank you for participating in the study. The purpose of the study was to investigate whether people with high levels of psychological essentialism endorse stereotypes even when exposed to a multicultural experience. None of the information that you provided will be linked back to you in any way as the study was completely anonymous.

You were led to believe that the study consisted of a memory recall test in which you were asked to write a short essay. Depending on the condition you were randomly assigned to you will have been asked to write about either: an experience you had with another culture and how it differed from New Zealand culture, an experience you had with New Zealand culture, or a time that you went to the beach. The real purpose of this exercise was not to test your memory, but rather, it was to expose some participants to a multicultural experience. Previous research (Tadmor et al, 2012) has found that this has the effect of reducing the degree to which people stereotype others.

The questionnaire that was filled out before writing the essay measured your level of psychological essentialism. The current study sought to investigate whether individuals that scored highly on this scale would still endorse stereotypes despite being exposed to a multicultural experience. The questionnaires answered after completing the essay were different measures of stereotype endorsement and prejudice. In order to gain honest opinions about how people felt, we withheld this information from you.

It is known that when people know that their responses are being recorded, they tend to respond with what they believe the socially acceptable answer to be and not how they truly feel. It was therefore vital to the integrity of the study that you were not aware of its true nature.

Any inquiries or complaints can be addressed to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch, (human-ethics@canterbury.ac.nz) or (03 364 2987).

If you are interested in learning more about the study, or if you have any concerns regarding any aspect of this study, please feel free to contact Julian Jennings (jgj22@uclive.ac.nz) or Dr Kumar Yogeeswaran (kumar.yogeeswaran@canterbury.ac.nz). If any distress was experienced due to the study, please contact either Lifeline (0800 543 354) or the UC Health Centre (03 364 2402).

Thank you again for your participation. We hope that the information provided by you will help with further understanding intergroup relations.

Appendix B: Question Items from First Questionnaire

How liberal (left-wing) or conservative (right-wing) do you consider yourself in the following domains?

	Very Liberal			Neither Liberal nor Conservative			Very Conservative
Social Issues	1	2	3	4	5	6	7
Economic Issues	1	2	3	4	5	6	7
Foreign-Policy Issues	1	2	3	4	5	6	7

Use the scale below where 1 = Strongly Disagree and 7 = Strongly Agree, rate your opinion on each of the statements below:

- I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.
- I have a strong sense of belonging to my own national group.
- I understand pretty well what my ethnic group membership means to me.
- I have often done things that will help me understand my ethnic background better.
- I have often talked to other people in order to learn more about my national group.
- I feel a strong attachment towards my own national group.

The statements below reflect different opinions and points of view. Please indicate how strongly you disagree or agree with each statement. Remember, your responses are anonymous and will not be connected to you.

Use the scale below where 1 = Strongly Disagree and 7 = Strongly Agree, rate your opinion on each of the statements below:

1. _____ It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.
2. _____ It would be best for everyone if the proper authorities censored magazines so that people could not get their hands on trashy and disgusting material.
3. _____ Our country will be destroyed some day if we do not smash the perversions eating away at our moral fibre and traditional beliefs.
4. _____ People should pay less attention to The Bible and other old traditional forms of religious guidance, and instead develop their own personal standards of what is moral and immoral.
5. _____ Atheists and others who have rebelled against established religions are no doubt every bit as good and virtuous as those who attend church regularly.
6. _____ Some of the best people in our country are those who are challenging our government, criticizing religion, and ignoring the "normal way" things are supposed to be done.

There are many kinds of groups in the world: men and women, ethnic and religious groups, nationalities, political factions. How much do you support the ideas about groups in general? Next to each statement, write a number from 1 to 10 to show your opinion.

Extremely Oppose 1 2 3 4 5 6 7 8 9 10 Extremely Favor

- 1) In setting priorities, we must consider all groups.
- 2) We should not push for group equality.
- 3) Group equality should be our ideal.
- 4) Superior groups should dominate inferior groups.

The Essentialist Entitativity Beliefs Scale (Roets & Van Hiel, 2011)

Note: Uniformity: items 1, 4, 7 and 10; informativeness: items 2, 5, 8, and 11; inference: items 3, 6, 9, and 12. Items 6, 7, 8, 10, 11, and 12 are reverse coded.

	Completely Disagree				Completely Agree
Members of a racial group are usually very similar	1	2	3	4	5
If you know to which racial group someone belongs, you know a lot about his/her personality	1	2	3	4	5
Despite apparent differences between members of the same racial group, in essence they are the same	1	2	3	4	5
Members of a racial group usually are identical in many respects	1	2	3	4	5
Membership of a racial group largely determines someone's identity	1	2	3	4	5
Members of a racial group share only superficial attributes, but actually they are quite different	1	2	3	4	5
Members of a racial group usually differ a lot from each other	1	2	3	4	5

Knowing that someone belongs to a racial group, is not sufficient to judge a person	1	2	3	4	5
Members of certain racial groups share a large number of underlying characteristics besides their superficial resemblances or differences	1	2	3	4	5
Members of a racial group have not much in common	1	2	3	4	5
Membership of a particular racial group says nothing about a specific person	1	2	3	4	5
Members of certain racial groups are often very different although they might look similar at first glance	1	2	3	4	5

Appendix C: Experimental Manipulation (Essays)

Multicultural Experience Essay Manipulation

Describe an experience in which you were exposed to a culture other than New Zealand culture. For example, try to think about a time you have lived abroad, had gastronomical or musical experiences in other cultures, or meetings with friends from different cultures.

Try to relive the experience again in your imagination. Please describe the experience with as much detail as possible, taking into account the following questions: How did you feel? What did you think about? How similar or different was the experience from what you expected? **How similar or different was the experience from what you are familiar with from New Zealand culture?**

Please try to write about 2-3 paragraphs and to invest **at least 10 minutes** completing this task.

Event description:

Home (New Zealand) Experience Essay Manipulation

Describe an experience in which you were exposed to New Zealand culture. For example, try to think about where you live, NZ gastronomical or musical experiences, or meetings with NZ friends.

Try to relive the experience again in your imagination. Please describe the experience with as much detail as possible, taking into account the following questions: How did you feel? What did you think about?

Please try to write about 2-3 paragraphs and to invest **at least 10 minutes** completing this task.

Event description:

Control Experience Essay Manipulation- Beach version

Describe the last time you went to the beach. For example, try to think about the things you saw.

Try to relive the experience again in your imagination. Please describe the experience with as much detail as possible, taking into account the following questions: How did you feel? What did you think about?

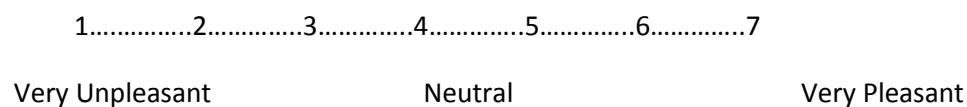
Please try to write about 2-3 paragraphs and to invest **at least 10 minutes** completing this task.

Event description:

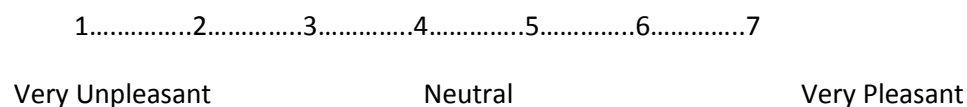
Appendix D: Question Items from Second Questionnaire

Feeling Thermometer

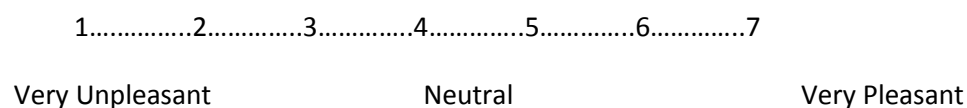
How do you **feel** about Asians as a group? I feel...



How do you **feel** about homosexuals as a group? I feel...

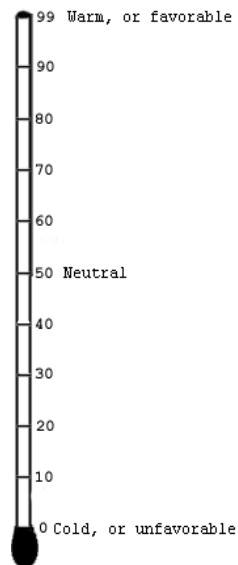


How do you **feel** about the elderly as a group? I feel...

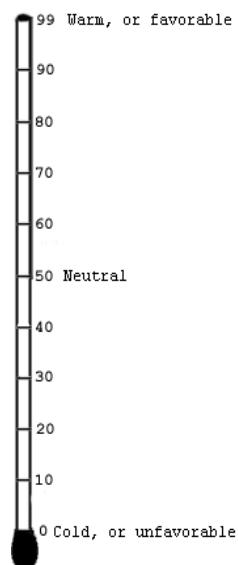


Feelings Thermometer

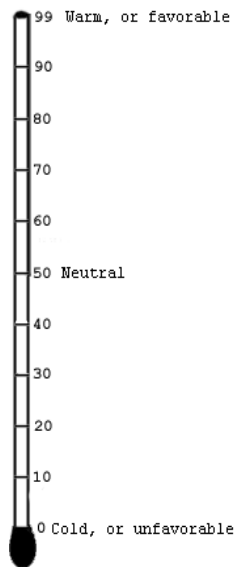
Please make a mark on the scale below indicating how you feel about **Asians** in general. If you mark somewhere between **1 degree and 49 degrees, that indicates you feel cold, or unfavorable**, towards Asians. Marking **50 degrees means that you feel neutral** and marking between **51 degrees and 99 degrees means that you feel warm, or favorable**, towards **Asians**.



Please make a mark on the scale below indicating how you feel about **homosexuals** in general. If you mark somewhere between **1 degree and 49 degrees**, that indicates you feel **cold, or unfavorable**, towards Asians. Marking **50 degrees** means that you feel **neutral** and marking between **51 degrees and 99 degrees** means that you feel **warm, or favorable**, towards Asians.



Please make a mark on the scale below indicating how you feel about **the elderly** in general. If you mark somewhere between **1 degree and 49 degrees**, that indicates you feel **cold, or unfavorable**, towards Asians. Marking **50 degrees** means that you feel **neutral** and marking between **51 degrees and 99 degrees** means that you feel **warm, or favorable**, towards Asians.



Need for Cognitive Closure Scale (NFCS) (Roets, & Van Hiel, 2007)

	Strongly Disagree					Strongly Agree
When I have made a decision, I feel relieved.	1	2	3	4	5	6
When I am confronted with a problem, I'm dying to reach a solution very quickly.	1	2	3	4	5	6
I would quickly become impatient and irritated if I would not find a solution to a problem	1	2	3	4	5	6
I would rather make a decision quickly than sleep over it.	1	2	3	4	5	6
Even if I get a lot of time to make a decision, I still feel compelled to decide quickly.	1	2	3	4	5	6

I almost always feel hurried to reach a decision, even when there is no reason to do so.	1	2	3	4	5	6
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Demographics

In this section of the study, we would like to ask a few background questions about you.

Are you male or female? ☐ Male ☐ Female ☐ Other

How old are you? _____

Were you born in New Zealand? ☐ Yes ☐ No

Nationality/Citizenship? _____

Ethnicity:

- a. Maori
- b. New Zealand European
- c. Asian
- d. Pacific Islander
- e. Indian
- f. Asian (Other)
- g. Middle Eastern
- h. African
- i. European
- j. Other (please specify)

What is the ethnic group with which you most closely identify? _____

What stage are you in your university education?

Stage 1 Stage 2 Stage 3 Post-grad Other _____

What is your college major/area of specialisation?